IN THE CLAIMS

Claim 1 (currently amended): A heat sink assembly, comprising:

a circuit board having a mounting pad provided with an adhesive material in a mounting region;

a mounting plate formed of a thermally conductive material and defining a plurality of adhesive flow openings therethrough, said mounting plate having a first major surface being positioned on said mounting pad of said circuit board;

a heat dissipation element thermally connected to said mounting plate and being spaced from said circuit board, said heat dissipating element being disposed in a position to receive air flow on both sides~~; and~~

a heat generating component mounted on said mounting plate at a second major surface opposite said first major surface, said heat dissipating element being spaced from said heat generating component to permit air flow between said heat dissipating element and said heat generating component; and

an extension generally perpendicular to said mounting plate in a direction opposite said first major surface and extending substantially along the entire length of said mounting plate.

Claim 2 (original): A heat sink assembly as claimed in claim 1, wherein said adhesive material is electrical solder.

Claim 3 (original): A heat sink assembly as claimed in claim 1, wherein said adhesive material is thermal adhesive.

Claim 4 (currently amended): A heat sink assembly as claimed in claim 1, wherein said heat dissipation element includes:

~~an extension generally perpendicular to said mounting plate in a direction opposite said first major surface; and~~

a portion generally parallel to said mounting plate and spaced therefrom.

Claim 5 (original): A heat sink assembly as claimed in claim 4, wherein said portion overlies said mounting plate.

Claim 6 (original): A heat sink as claimed in claim 4, wherein said portion includes lateral extensions.

Claim 7 (original): A heat sink as claimed in claim 4, wherein said mounting plate and said extension and said portion form a U shape.

Claim 8 (original): A heat sink assembly as claimed in claim 4, wherein said mounting plate and said extension and said portion form a Z shape.

Claim 9 (currently amended): A heat sink assembly, comprising:

a circuit board having a mounting pad provided with an adhesive material in a mounting region,

a mounting plate formed of a thermally conductive material and defining a

plurality of adhesive flow openings therethrough, said mounting plate having a first major surface being positioned on said mounting pad of said circuit board;

a heat dissipation element thermally connected to said mounting plate and being spaced from said circuit board, said heat dissipating element being disposed in a position to receive air flow on both sides;

a heat generating component mounted on said mounting plate at a second major surface opposite said first major surface, and

a channel along an edge of said mounting plate, said channel receiving a tab extending from said heat generating component.

Claim 10 (original): A method for mounting a heat sink with a heat generating component, comprising the steps of:

applying a pad of adhesive material to a mounting region of a circuit board;

positioning the heat generating component on a first major surface of a mounting plate of a heat sink;

positioning an extension generally perpendicular to said mounting plate in a direction opposite said first major surface and extending substantially along the entire length of said mounting plate;

positioning a second major surface of the mounting plate of the heat sink on said pad of adhesive material at said mounting region of said circuit board; and

liquifying the adhesive material to flow through openings in said mounting plate to adhere said circuit board and said mounting plate and said heat generating component to one another.

Claim 11 (original): A method as claimed in claim 10, further comprising the step of:

fastening said heat generating component on said first major surface of said mounting plate prior to said step of positioning said second major surface of said mounting plate on said pad of adhesive.

Claim 12 (original): A method as claimed in claim 11, wherein said step of fastening is by crimping a channel on said mounting plate onto a tab on said heat generating component.

Claim 13 (currently amended): A heat sink for a surface mounted heat generating component, comprising:

a mounting plate of a generally planer configuration defining a plurality of openings therethrough for adhesive flow through said openings;

an extension member extending generally perpendicular to said mounting plate and extending substantially along the entire length of said mounting plate; and

a heat dissipation element connected to said extension member, said heat dissipation element and said extension member surface and said mounting plate being thermally conductive and said heat dissipating element being spaced from the heat generating component in a direction ~~perpendicular~~ parallel to a major surface of said heat generating component.

Claim 14 (currently amended): A surface mountable heat sink for a component,

comprising:

a substantially planar mounting plate having an outer extent substantially a same shape and dimensions as a footprint of the component, said mounting plate defining openings extending therethrough:

a vertical portion extending at a substantially right angle from said mounting plate, said vertical portion having a first end at said mounting plate and a second end opposite said first end; and

a heat dissipating fin connected to said second end of said vertical portion, said heat dissipating fin having an extent in a direction substantially parallel to said mounting plate and ~~space~~ spaced therefrom and extending substantially along the entire length of said mounting plate, said heat dissipating fin being spaced from the component in a direction perpendicular to said mounting plate when the component is mounted on said mounting plate so as to define an air gap between said heat dissipating fin and the component.

Claim 15 (previously amended): A surface mountable heat sink and component, comprising:

a substantially planar mounting plate having an outer extent substantially a same shape and dimensions as a footprint of the component, said mounting plate defining opening extending therethrough;

a vertical portion extending at a substantially right angle from said mounting plate, said vertical portion having first end at said mounting plate and a second end opposite said first end; and

a heat dissipating fin connected to said second end of said vertical portion, said heat dissipating fin having a extent in a direction substantially parallel to said mounting plate and space therefrom, said heat dissipating fin being spaced from the component when the component is mounted on said mounting plate, and

a channel between said mounting plate and said vertical portion, said channel receiving a portion of the component when the component is mounted on said mounting plate.

Claim 16 (previously added): A power transistor mounting, comprising:

a power transistor component having a housing and leads and a back plate, said back plate having an edge portion extending beyond said housing;

a perforate plate disposed against said back plate of said power transistor;

a channel connected to said perforate plate, said channel engaging said edge portion of said back plate;

a vertical portion extending from said channel in a direction substantially perpendicular to said perforate plate, said vertical portion having a first end at said channel and a second end opposite said first end; and

a heat dissipating fin connected to said second end of said vertical portion, said heat dissipating fin including a planar part substantially parallel to said perforate plate and spaced from said power transistor to receive an air flow;

said perforate plate and said channel and said vertical portion and said heat dissipating fin being formed of a heat conducing material to dissipate heat generated by the power transistor.

Claim 17 (previously added): A heat sink comprising:

a unitary sheet of thermally conductive metallic material formed to include:

a mounting plate having a planar configuration, said mounting plate defining perforations extending therethrough, said mounting plate having a first connecting edge:

a connecting portion extending from said first connecting edge of said mounting plate, said connecting portion being disposed substantially perpendicular to said mounting plate, said connecting portion having a second connecting edge spaced from said first connecting edge; and

a heat dissipating portion defining heat dissipating surfaces.

Claim 18 (currently amended): A heat sink assembly, comprising:

a circuit board having a mounting pad provided with an adhesive material in a mounting region;

a mounting plate formed of a thermally conductive material and defining a plurality of adhesive flow openings therefthrough, said mounting plate having a first major surface being positioned on said mounting pad of said circuit board;

an extension generally perpendicular to said mounting plate in a direction opposite said first major surface and extending substantially along the entire length of said mounting plate;

a heat dissipation element thermally connected to said mounting plate and being spaced from said circuit board, said heat dissipating element being disposed with an air gap below between said heat dissipating element and an air gap above said heat dissipating element; and

a heat generating component mounted on said mounting plate at a second major surface opposite said first major surface.

Claim 19 (previously added): A heat sink assembly as claimed in Claim 1, wherein said circuit board is in a first plane, said heat dissipating element is in a second plane and said heat generating element is in a third plane, said first and second planes are spaced apart and said third plane having said heat generating element is disposed between said first and second plane.

Claim 20 (previously added): A heat sink as claimed in Claim 19, wherein said first and second and third planes are substantially parallel to one another.